

A. LOWY.
ANALYTICAL PIPETTE.
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1,204,368.

Patented Nov. 7, 1916.

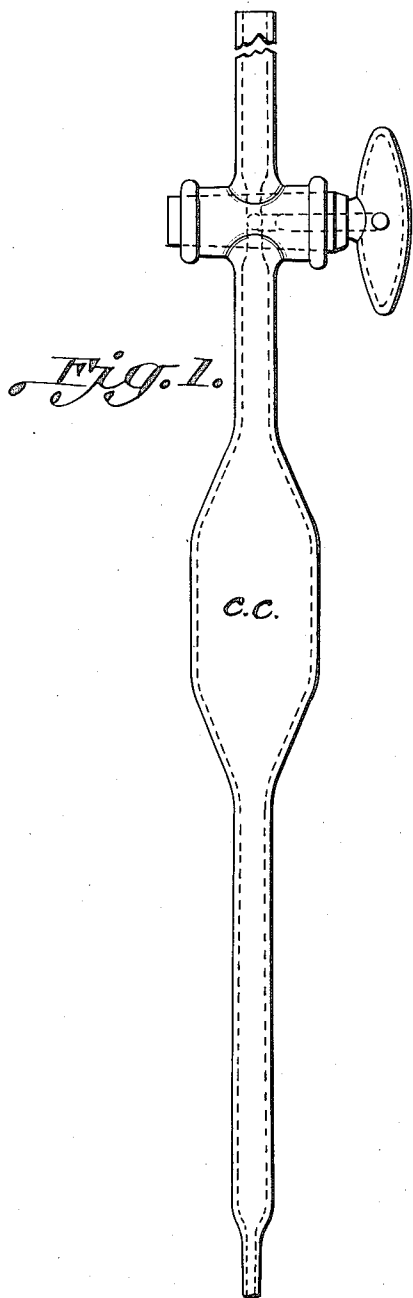


Fig. 2.

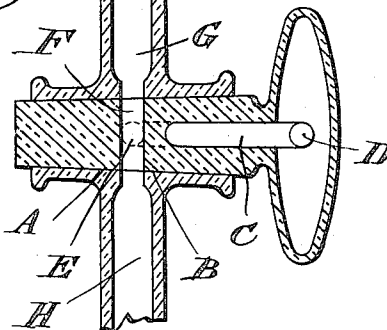
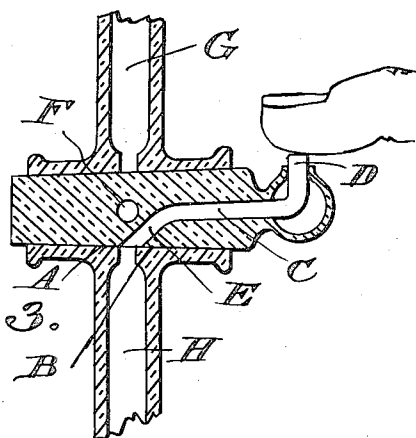


Fig. 3.



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Witnesses:
William O. Guntwill
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UNITED STATES PATENT OFFICE.

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ANALYTICAL PIPETTE.

1,204,368.

Specification of Letters Patent.

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Application filed March 27, 1916. Serial No. 87,114.

To all whom it may concern:

Be it known that I, ALEXANDER LOWY, a citizen of the United States, residing in the borough of Brooklyn, city of New York, county of Kings, and State of New York, have invented a new and useful Improvement in Analytical Pipettes, of which the following is a specification.

My invention relates to improvements in an analytical pipette, consisting of a new and modified stop-cock.

The objects of my improvement are, first, it enables the operator to automatically control an exact measured volume of liquid sucked up into the pipette; second, it obviates the necessity of adjusting and maintaining and manipulating the exact volume of the liquid once it has passed the graduation mark; and third, it permits of the discharge from the pipette of the exact measured volume of liquid. These objects I attain in the improved pipette shown in the annexed drawings, in which:—

Figure 1 shows the entire pipette with the modified stop-cock adaptable to any given volume. Fig. 2 shows the position of stop-cock while the liquid is being drawn up. Fig. 3 shows the position of stop-cock after the stopper has been turned clock-wise 90° to that shown in Fig. 2.

Similar letters refer to similar parts throughout the several views.

Line A B (Fig. 2) is the mark of graduation.

H shows chamber below stop-cock and G shows chamber above stop-cock.

F is a cylindrical bore through stop-cock connecting chambers G and H during the process of suction.

E is a cylindrical bore ending back of F at an angle of 90° of which C is a continuation and ends at a slight elevation at D.

D (Fig. 3) shows place closed by thumb. In this position channel C is connected with chamber H through opening E. In this position chamber G is shut off from chamber

H. The pipette is made of glass and is adaptable to any given volume of liquid.

The operation of my improved pipette is as follows:—With suction applied at end of chamber G (Fig. 2) with mouth or any other sucking device, the liquid is drawn up through chamber H until it just passes the graduated mark A B. The thumb is then placed on D so as to close opening D airtight. The stopper of the stop-cock is then rotated clockwise through 90°, thus bringing opening E (the continuation of tube C and D) to line of graduation A B and directly in contact with the upper opening of chamber H. The thumb is then released. Gravity now forces the exact measured volume of liquid out of chamber H. Any excess liquid sucked up beyond line A B will be entrapped in either bore F or in bore F and chamber G. This excess is returnable by revolving the stopper of the stop-cock counter clockwise through 90°.

Said analytical pipette can be enlarged, decreased in size or otherwise altered as to form or shape, or material or minor details of construction within the scope of this invention without departing from its spirit or sacrificing any of its advantages.

I claim:—

In a pipette, in combination a chamber adapted to contain liquid, conduits communicating with opposite sides of said chamber; a stop-cock interposed in one of said conduits whereby a portion of said conduit connects said liquid chamber and said stop-cock, and a duct within said stop-cock adapted to establish communication between said connecting conduit and the atmosphere when said stop-cock is closed.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses, this 25th day of March, 1916.

ALEXANDER LOWY, PR. D.

Witnesses:

JULES SCHEIRTZ,
FRANK C. ERB.